

CLAIMS

1. A peristaltic hose pump of the type having a shaft (20) comprising several eccentric discs (21) each of which carries a bearing (22) and thus moves a pump finger (11) transversely to a pump hose (10), and with a sealing diaphragm (27) disposed between the shaft (20) and the pump hose (10), and wherein:
 - each of the bearings (22) is connected with a connecting rod (25) which engages on a linearly guided pump finger (11),
 - the pump fingers (11) are arranged at the side of the sealing diaphragm (27) facing the pump hose (10), and
 - the connecting rods (25) pass through the sealing diaphragm (27).
2. The hose pump of claim 1, wherein the sealing diaphragm (27) comprises lateral folds (31) permitting an adaptation to the transverse movements of the connecting rod (25).
3. The hose pump of claim 1, further comprising:
 - a housing (16); and
 - a guide plate (13) removably mounted to the housing (16), the guide plate (13) having a longitudinally extending receiving channel (12) for the pump hose (10) and guide channels (14) for the pump fingers (11).
4. The hose pump of claim 3, further comprising:
 - a thrust bearing (17), for supporting the pump hose (10), attached to the housing (16), the thrust bearing (17) comprising a projection (18) projecting into the receiving channel (12).
5. The hose pump of claim 1 wherein the eccentric discs (21) of the shaft (20) are integrally formed to the shaft (20).

6. The hose pump of claim 5, wherein the eccentric discs (21) form the inner rings of ball bearings (22).
7. The hose pump of claim 1 wherein the eccentric discs (21) form the inner rings of ball bearings (22).
8. The hose pump of claim 1 wherein the connecting rod (25) comprises an outer ring (23) surrounding the bearing (22).
9. The hose pump of claim 5, wherein the connecting rod (25) comprises an outer ring (23) surrounding the bearing (22).
10. The hose pump of claim 6, wherein the connecting rod (25) comprises an outer ring (23) surrounding the bearing (22).
11. The hose pump of claim 7, wherein the connecting rod (25) comprises an outer ring (23) surrounding the bearing (22).
12. A peristaltic hose pump for moving fluid through a pump hose (10), the peristaltic hose pump comprising:
 - a rotatable shaft (20)
 - several eccentric discs (21) connected to the shaft (20) for rotation therewith,
 - a bearing (22) carried by each eccentric disc (21),
 - several linearly guided pump fingers (11) corresponding to each bearing (22),

a connecting rod (25), connected between each pump finger (11) and each bearing (22), so that the pump finger (11) is moved transversely to a pump hose (10) upon rotation of the shaft (20),

a sealing diaphragm (27) disposed between the shaft (20) and the pump hose (10), wherein the connecting rods (25) sealingly pass through the sealing diaphragm (27) and the pump fingers (11) are arranged at one side of the sealing diaphragm (27) facing the pump hose (10) and the bearings (22) are at the other side of the sealing diaphragm (27) facing the rotatable shaft 20.

13. The hose pump of claim 12, wherein the sealing diaphragm (27) comprises lateral folds (31) permitting an adaptation to the transverse movements of the connecting rod (25).
14. The hose pump of claim 13, further comprising:
 - a housing (16), and
 - a guide plate (13) removably mounted to the housing (16), the guide plate (13) having a longitudinally extending receiving channel (12) for the pump hose (10) and guide channels (14) for linearly guiding pump fingers (11).
15. The hose pump of claim 14, further comprising:
 - a thrust bearing (17) attached to the housing (16) for supporting the pump hose (10), the thrust bearing (17) comprising a projection (18) projecting into the receiving channel (12).
16. The hose pump of claim 12, further comprising:
 - a housing (16), and
 - a guide plate (13) removably mounted to the housing (16), the guide

plate (13) having a longitudinally extending receiving channel (12) for the pump hose (10) and guide channels (14) for linearly guiding pump fingers (11).

17. The hose pump of claim 16, further comprising;
a thrust bearing (17) for supporting the pump hose (10), the thrust bearing (17) comprising a projection (18) projecting into the receiving channel (12).
18. The hose pump of claim 12, wherein the eccentric discs (21) are integrally formed on the shaft (20).
19. The hose pump of claim 12, wherein bearings (22) comprise ball bearings (22) and the eccentric discs (21) form the inner rings of the ball bearings (22).
20. The hose pump of claim 12, wherein the connecting rod (25) comprises an outer ring (23) surrounding the bearing (22).